IV. REMARKS]

Claims 1-3, 6-8, 11, 18-22 and 25 are at issue. Claims 12, 13 and 17 have been allowed and claims 4, 5, 9, 10, 14-16, 23 and 24 have been indicated allowable.

The specification at page 5, lines 10 and 14 has been amended as the Examiner suggests. On page 10, line 19 has not been deleted as the Examiner suggested because it is a standard sentence used in patents to introduce the claims and is entirely proper.

Claims 3, 4, 8, 9, 14, 15, 22 and 23 have been amended as the Examiner has suggested to change the phrase "the Hermitian transpose" to "a Hermitian transpose." It is therefore believed that these claims as well as claims 5, 10, 15 and 24 which are dependent thereon are proper under 35 U.S.C. §112. Claim 18 has been amended to correct a typographical error wherein the word "for" was inadvertently omitted at line 9 in claim 18 as originally presented.

The rejection of claims 1-3, 6, 7, 8, 11, 18-22 and 25 as anticipated under 35 U.S.C. §102(a) by Honig et al. "Adaptive Techniques for Multiuser CDMA Receivers" is respectfully traversed.

It is not believed that the Honig et al. article is prior art under 35 U.S.C. §102(a). Moreover, even if the article were prior art, the Honig et al. article does not teach the elements set forth in the claims at issue. Specifically, with regard to claims 1-3 and 6, the article does not teach "generating a set of basis vectors where each successive basis vector is a function of a given or an estimated steering vector and successively greater powers of a covariance matrix for a sequence of received sample vectors of data with the initial basis vector being formed from the steering vector." The article at page 51, column 2, lines 14-24 and page 52, column 1, lines 1-5 discusses a "linear multiuser detector." There is no disclosure of generating a set of "basis vectors" that are a function of a given or estimated "steering vector" and "successively greater powers" of a sample covariance matrix "with the initial basis vector being formed from the steering vector" as claimed. Nor does the article at

page 53, column 2, paragraph 4, lines 1-2 and page 54, lines 1-15 disclose generating a reduced rank vector having a D x 1 dimension from a matrix of basis vectors and a received sample vector of data as set forth in the claims. Moreover, this same passage of the article does not disclose the claimed step of generating a D x 1 filter coefficient vector or generating the approximate desired signal from the filter coefficients and the reduced rank vector of data as claimed. Because the Honig et al. article does not teach the elements set forth in claims 1-3, and 6, the article cannot anticipate these claims under 35 U.S.C. §102(a).

Similarly, the Honig et al. article does not teach generating a reduced rank vector of digital data having a D x 1 dimension or generating D filter coefficients from a plurality of correlations between pairs of basis vectors of data or generating the approximate desired signal from the filter coefficients and the reduced rank vector of data as set forth in claims 7, 8 and 11. As such, the Honig et al. article cannot anticipate claims 7, 8 and 11 under 35 U.S.C. §102(a).

With regard to claim 18, the Honig et al. article does not teach generating a set of basis vectors wherein each successive basis vector is a function of a given or an estimated steering vector and successively greater powers of a covariance matrix or generating a reduced rank vector of digital data having a D x 1 dimension or generating D filter coefficients from the generated basis vectors as recited in claims 18-22 and 25. Therefore, the article cannot anticipate claims 18-22 and 25 under 35 U.S.C. §102(a).

Because the Honig et al. article does not teach the claimed subject matter it is believed that claims 1-3, 6-8, 11, 18-22 and 25 are allowable under 35 U.S.C. §102. Reconsideration

and allowance is respectfully requested.

Respectfully submitted,

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